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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended) A defect-inspecting apparatus comprising:

- a stage on which an object to be inspected is mounted;
- an illumination optical system comprising:
 - a high-angle illumination system which illuminates light on a surface of the object to be inspected with desired luminous flux from a high-angle relative to the surface of the object; and
 - a low-angle illumination system which illuminates light on the surface of the object to be inspected with desired luminous flux from a low-angle relative to said high-angle illumination system;
- a detection optical system comprising:
 - an image formation optical system which condenses light scattered from the surface of the object by the illumination of the high-angle illumination system ~~and/or~~ said low-angle illumination system; and
 - ~~a photoelectric conversion unit which receives the scattered light, of which image formation has been performed in the image formation optical system, to convert~~ a detector which detects light from said image formation optical system and converts the ~~scattered~~ detected light into a first luminance signal corresponding to

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said light illuminated by said high-angle illumination optical system
and/or a second luminance signal corresponding to said light
illuminated by said low-angle illumination optical system; and
a comparison and judgment unit which classifies defects on the object to be
inspected into scratches, thin film-like foreign materials and convex defects by using
the first luminance signal and/or the second luminance signal, which have been
converted by the photoelectric conversion unit of the detection optical system.

Claim 2 (Previously Presented) A defect-inspecting apparatus according to
Claim 1, wherein:

the high-angle illumination system of the illumination optical system is
configured so that stray light is not generated from the image information optical
system.

Claim 3 (Previously Presented) A defect-inspecting apparatus according to
Claim 1, wherein:

the detection optical system comprises a shielding optical element which
shields a specific light image, which is caused by first reflection light generated from
a point high-angle incident-illuminated by the high-angle illumination system, on a
Fourier transformed surface of the first reflection light emitted from the point.

Claim 4 (Currently Amended) A defect-inspecting apparatus according to
Claim 1, wherein:

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in the comparison and judgment unit, correlation between the first ~~luminance~~ signal and the second ~~luminance~~-signal is used to classify the defects into scratches, thin film-like foreign materials and convex defects.

Claim 5 (Currently Amended) A defect-inspecting apparatus according to Claim 1, wherein:

the comparison and judgment unit is configured to classify concave defects into scratches and thin film-like foreign materials on a basis of data in response to a defect size calculated by the first ~~luminance~~-signal and the second ~~luminance~~-signal.

Claim 6 (Currently Amended) A defect-inspecting apparatus according to Claim 1, wherein:

the comparison and judgment unit is configured to classify foreign materials, which are convex defects, into a small group and a large group on a basis of data in response to a defect size calculated by the first ~~luminance~~-signal and the second ~~luminance~~-signal.

Claim 7 (Previously Presented) A defect-inspecting apparatus according to Claim 1, wherein:

the comparison and judgment unit is configured to judge that a classified convex defect occurs inside a circuit pattern area, or that the classified convex detect occurs outside the circuit pattern area.

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Claim 8 (Previously Presented) A defect-inspecting apparatus according to Claim 1, wherein:
the comparison and judgment unit has a displaying unit which displays information of defects classified by the comparison and judgment unit.

Claim 9 (Currently Amended) A defect-inspecting apparatus according to Claim 1, wherein:
the comparison and judgment unit has a displaying unit which displays information about a relation of the first luminance-signal to classified defects.

Claim 10 (Currently Amended) A defect-inspecting apparatus according to Claim 1, wherein:
the comparison and judgment unit has a displaying unit for displaying information about a relation of the second luminance-signal to discriminate a defect.

Claim 11 (Currently Amended) A defect-inspecting apparatus according to Claim 1, wherein:
the comparison and judgment unit has a displaying unit for plotting a relation between the first luminance-signal and the second luminance-signal, which have been converted by the ~~photoelectric conversion unit~~ detector of the detection optical system, on a correlation diagram, where a horizontal axis and a vertical axis are expressed by logarithm values, to display the relation.

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Claim 12 (Previously Presented) A defect-inspecting apparatus according to Claim 1, wherein:

in the illumination optical system, a point incident-illuminated by the high-angle illumination system and a point oblique-illuminated by the low-angle illumination system, which are on the surface of the object to be inspected, are configured to be different from each other in a visual field of the detection optical system.

Claim 13 (Currently Amended) A defect-inspecting apparatus comprising:
a stage on which an object to be inspected is mounted;
an illumination optical system comprising;

~~an incident~~ a high-angle illumination system that ~~incident-illuminates~~ illuminates with light including UV light or DUV light at a point on a surface of the object to be inspected, which is mounted on the stage, with desired luminous flux from a ~~normal~~ high angle direction relative to the surface ~~or from a direction in proximity to the normal line~~; and

a ~~oblique~~ low-angle illumination system that ~~oblique-illuminates~~ illuminates light including UV light or DUV light, which has a wavelength different from that of said ~~incident-illuminated~~ high-angle illumination light, at a point on the surface of the object to be inspected with desired luminous flux;

a detection optical system comprising;

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a condensing optical system which condenses first high-angle scattered light ~~traveling at a high angle relative to the surface of the object to be inspected,~~ from among first reflection light generated from the point, which has been ~~incident-illuminated~~illuminated by the ~~incident~~high-angle illumination system of the illumination optical system, and second high-angle scattered light ~~traveling at the high-angle,~~ from among second reflection light generated from the point, which has been ~~oblique-illuminated~~illuminated by the ~~oblique~~low-angle illumination system of the illumination optical system; and

~~a wavelength-separation optical system which wavelength-separates the first high-angle scattered light and the second high-angle scattered light, which have been condensed by the condensing optical system;~~

an image formation optical system which performs image formation of each of the first high-angle scattered light and the second high-angle scattered light, ~~which have been separated by the wavelength-separation optical system;~~ and

a first and a second photoelectric conversion unit which receives each of the first high-angle scattered light and the second high-angle scattered light, for which image formation has been performed by the image formation optical system, to convert the first high-angle scattered light and the second high-angle scattered light into a first luminance signal and a second luminance signal respectively; and

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a comparison and judgment unit which discriminates a defect on the object to be inspected on a basis of a relation between the first luminance signal converted by the first photoelectric conversion means and the second luminance signal converted by the second photoelectric conversion means in the detection optical system.

Claim 14 (Currently Amended) A defect-inspecting apparatus according to Claim 13, wherein:

the incident illumination system of the illumination optical system is configured so that stray light is not generated from the high-angle ~~condensation~~condensing optical system.

Claim 15 (Previously Presented) A defect-inspecting apparatus according to Claim 13, wherein:

the detection optical system comprises a shielding element which shields a specific light image, which is caused by the first reflection light, on a Fourier transformed surface of the first reflection light emitted from the point.

Claim 16 (Original) A defect-inspecting apparatus according to Claim 13, wherein:

In the comparison and judgment unit, ratios are used as the correlation.

Claim 17 (Currently Amended) A defect-inspecting apparatus according to Claim 13, wherein:

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the comparison and judgment unit is configured to classify concave defects into scratches and thin film-like foreign materials on a basis of data in response to a defect size calculated by the first ~~luminance~~-signal and the second ~~luminance~~-signal.

Claim 18 (Currently Amended) A defect-inspecting apparatus according to Claim 13, wherein:

the comparison and judgment unit is configured to classify particulate foreign materials, which are convex defects, into a small group and a large group on a basis of data in response to a defect size calculated by the first ~~luminance~~-signal and the second ~~luminance~~-signal.

Claim 19 (Original) A defect-inspecting apparatus according to Claim 13, wherein:

the comparison and judgment unit is configured to judge that the classified convex defect occurs inside a circuit pattern area, or that the classified convex defect occurs outside the circuit pattern area.

Claim 20 (Original) A defect-inspecting apparatus according to Claim 13, wherein:

the comparison and judgment unit has an displaying means for displaying information of a discriminated defect.

Claim 21 (Currently Amended) A defect-inspecting apparatus according to Claim 13, wherein:

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the comparison and judgment unit has a displaying means for displaying information about a relation of the first ~~luminance~~-signal to discriminate a defect.

Claim 22 (Currently Amended) A defect-inspecting apparatus according to Claim 13, wherein:

the comparison and judgment unit has a displaying means for displaying information about a relation of the second ~~luminance~~-signal to discriminate a defect.

Claim 23 (Currently Amended) A defect-inspecting apparatus according to Claim 13, wherein:

the comparison and judgment unit has a displaying means for plotting a relation between the first ~~luminance~~-signal and the second ~~luminance~~-signal, which have been converted by the photoelectric conversion means of the detection optical system, on a correlation diagram, where a horizontal axis and a vertical axis are expressed by logarithm values, to display the relation.

Claims 24 and 25 (Canceled)

Claim 26 (Currently Amended) A defect-inspecting method comprising:
high-angle illuminating light onto a surface of an object to be inspected with desired luminous flux from a high-angle relative to the surface of the object; and
low-angle illuminating light onto the surface of the object to be inspected with desired luminous flux from a low-angle relative to said high-angle illuminating;
detecting by:

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condensing light scattered from the surface of the object by the illumination of the high-angle illuminating ~~and~~ and/or the low-angle illuminating; and

receiving the ~~scattered~~ detected light from the condensing, and converting the ~~scattered~~ detected light into a first luminance-signal corresponding to said light illuminated by said high-angle illuminating ~~and~~ and/or a second luminance-signal corresponding to said light illuminated by said low-angle illuminating; and

comparing and judging to classify defects on the object to be inspected into scratches, thin film-like foreign materials and convex defects by using the first luminance-signal ~~and~~ and/or the second luminance-signal, which have been converted by the converting operation.

Claim 27 (Currently Amended) A defect-inspecting method comprising:

an illumination step for

~~incident-illuminating~~ high-angle illuminating illumination light including UV light or DUV light at a point on a surface of an object to be inspected, which is mounted on a stage, with desired luminous flux from a ~~normal line~~ high-angle direction relative to the surface, ~~or from a direction in proximity to the normal line,~~ using an ~~incident-illuminating~~ high-angle-illuminating system; and

~~oblique-illuminating~~ low-angle illuminating illumination light including UV light or DUV light, which has a wavelength different from that of said ~~incident-illuminated~~ high-angle illumination light, at a point on the surface of the object to be inspected with desired luminous flux using a ~~oblique illumination~~ low-angle-illuminating system;

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a detection step for

~~condensing first high-angle-scattered light traveling at a high-angle relative to the surface of the object to be inspected, from among first reflection light generated from the point, which has been incident-illuminated-illuminated by the illumination high-angle illuminating step, and second high-angle-scattered light traveling at the high-angle, from among second reflection light generated from the point, which has been oblique-illuminated-illuminated by the illumination low-angle-illuminating step,~~
using a condensing optical system;

~~wavelength-separating the first high-angle-scattered light and the second high-angle-scattered light, which have been condensed, using a wavelength separation optical system;~~

performing image formation for each of the first high-angle scattered light and the second high-angle scattered light; ~~and, which have been wavelength-separated, using an image formation optical system; and~~

receiving each of the first high-angle scattered light and the second high-angle scattered light, for which image formation has been performed, using a first and a second photoelectric conversion means to convert the first high-angle scattered light and the second high-angle scattered light into a first luminance-signal and a second luminance-signal respectively; and

a comparison and judgment step for discriminating a defect on the object to be inspected on a basis of a correlation between the first luminance-signal converted by the detection step and the second luminance-signal converted by the second photoelectric conversion means.

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Claim 28 (Canceled)

Claim 29 (Currently Amended) A method for producing a semiconductor device comprising:

a fabrication process for polishing, washing, or sputtering an object surface of a semiconductor device;

a defect inspection process including:

high-angle illuminating light onto a surface of an object to be inspected with desired luminous flux from a high-angle relative to the surface of the object; and

low-angle illuminating light onto the surface of the object to be inspected with desired luminous flux from a low-angle relative to said high-angle illuminating;

detecting by:

condensing light scattered from the surface of the object by the illumination of the high-angle illuminating ~~and~~ and/or the low-angle illuminating; and

receiving the ~~scattered~~ detected light from the condensing, and converting the ~~scattered~~ detected light into a first ~~luminance~~ signal corresponding to said light illuminated by said high-angle illuminating ~~and~~ and/or a second ~~luminance~~ signal corresponding to said light illuminated by said low-angle illuminating;

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comparing and judging to classify defects on the object to be inspected into scratches, thin film-like foreign materials and convex defects by using the first luminance signal ~~and~~ and/or the second luminance signal, which have been converted by the converting operation; and supplying the fabrication process with information of the scratches, thin film-like foreign materials and convex defects, which have been judged in the defect inspection process, as feedback.

Claim 30 (New) A defect-inspecting apparatus according to Claim 13, comprising:

a wavelength separation optical system which wavelength-separates the first high-angle scattered light and the second high-angle scattered light, which have been condensed by the condensing optical system.

Claim 31 (New) A defect-inspecting method according to Claim 27, comprising:

wavelength-separating the first high-angle scattered light and the second high-angle scattered light, which have been condensed, using a wavelength separation optical system.